

## **Australian Bureau of Statistics**

# 6291.0.55.001 - Labour Force, Australia, Detailed - Electronic Delivery, Mar 2016

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# **Summary**

## **Main Features**

Data from the monthly Labour Force Survey are released in two stages. The Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001) and Labour Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003) are part of the second release, and include detailed data not contained in the Labour Force, Australia (cat. no. 6202.0) product set, which is released one week earlier.

The Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001) is released monthly. Labour Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003) includes data only collected in February, May, August and November (including industry and occupation).

Since these products are based on the same data as the Labour Force, Australia (cat. no. 6202.0) publication, the 6202.0 Labour Force, Australia Explanatory Notes are relevant to both releases.

## **Annual Seasonal Re-analysis**

## **ANNUAL SEASONAL RE-ANALYSIS**

## INTRODUCTION

The annual seasonal re-analysis of the Labour Force series was conducted on estimates up to February 2016. The seasonally adjusted and trend estimates in this issue reflect adjustments made as a result of this re-analysis.

While combined seasonal factors for the complete time series are estimated each month, the parameters and prior corrections are reviewed annually at a more detailed level than is possible in the monthly processing cycle. The annual seasonal re-analysis takes into account each additional year's original data and assesses the appropriateness of seasonal adjustment parameters and prior corrections.

## WHAT IS SEASONAL ADJUSTMENT?

Labour Force data are collected monthly (or quarterly for some topics) using the same

methods, which results in original (that is, unadjusted) monthly or quarterly time series. Seasonal adjustment is applied to some of the original series to remove influences that are:

- systematic and calendar related, for example school leavers joining the labour force every February; and/or
- systematic and related to holidays which move around between months but which still occur every year, for example Easter.

Systematic and calendar related influences which have the same timing, same direction and similar magnitude every year, are removed to create the seasonally adjusted series. The presence and size of influences due to moving holidays, the variable timing of the commencement of interviews in January and the timing of supplementary surveys are estimated using a regression-ARIMA framework and also removed. The regression-ARIMA framework enables these influences to be accurately estimated. Without accurate estimation of these effects, the seasonal pattern may be obscured, and the seasonal factors may be less accurate.

The seasonally adjusted series are then smoothed to create the trend series. Seasonally adjusted and trend series are revised each month to take account of the latest original estimates.

The ABS aims to produce high quality seasonally adjusted estimates that are without systematic related variation. These series can be used to better inform month-to-month comparisons.

Seasonally adjusted aggregate hours worked estimates include more extensive corrections for the influence of public holiday and school holiday effects. Each moving holiday is estimated and removed in the aggregate state/territory estimates. State/territory level influences are used to estimate the school and public holiday effects in the Australia and full-time/part-time by sex estimates.

During each annual seasonal re-analysis, the framework for estimating moving holidays and variable timing of the commencement of interviews in January is assessed for appropriateness. This ensures that the impacts of these influences are being appropriately estimated from year to year, that assumptions used in the regression-ARIMA framework continue to be valid, and to implement improvements in estimation methodology.

## IMPACT ON THE LABOUR FORCE DATA

To account for the changes made to the supplementary survey program from 2014, the seasonal adjustment parameters and prior corrections have been monitored and revised regularly on an ongoing basis. As a result, revisions to seasonally adjusted and trend estimates arising from the 2016 annual seasonal re-analysis have been minimal, compared with previous annual seasonal re-analyses.

## **ONGOING REVIEW OF METHODOLOGY**

As part of a process of continuous improvement, the ABS will continue to explore options for further improving the quality of Labour Force time series. Such investigations may identify further optimisations, such as potentially changing the lengths of some seasonal adjustment filters, or changing elements of the aggregation structures for some indirectly adjusted series.

The ABS will continue to provide updates on any developments in this space within Labour Force, Australia (cat. no. 6202.0), ahead of any changes being implemented as part of the 2017 annual seasonal re-analysis.

## **FURTHER INFORMATION**

For any queries regarding the implementation of these changes contact the National Information Referral Service on 1300 135 070, or via email at client.services@abs.gov.au.

## **Article Archive**

This section provides an archive of articles and analysis published in Labour Force, Australia (cat. no. 6202.0), promoting the effective use of labour force statistics. Articles are sorted by publication date.

Articles on labour related topics are also available in Australian Labour Market Statistics (cat. no. 6105.0) and Australian Social Trends (cat. no. 4102.0).

## **Labour Force Survey Archive**

Online Collection in the Labour Force Survey What's New in the Labour Force What's New in the Labour Force What's New in the Labour Force Measures of Underemployment and Underutilisation	February 2016 February 2016 January 2016 December 2015 November 2015
Update on Recommendation 7 from the Independent Technical Review	November 2015
What's New in the Labour Force	November 2015
What's New in the Labour Force	October 2015
What's New in the Labour Force	September 2015
Online Collection in the Labour Force Survey	August 2015
What's New in the Labour Force	July 2015
Progress with recommendations from the Independent Technical Review	July 2015
Assessing Volatility in the Labour Force Series	June 2015
What's New in the Labour Force	June 2015
Update on Recommendations 10 and 11 from the Independent Technical Review	June 2015
What's New in the Labour Force	May 2015
Update on Recommendation 7 from the Independent Technical Review	May 2015
What's New in the Labour Force	April 2015
What's New in the Labour Force	March 2015
Annual Seasonal Reanalysis	March 2015
Update on Recommendations from the Independent Technical Review	March 2015
What's new in the Labour Force	February 2015
Online Collection in the Labour Force Survey	February 2015
Rebenchmarking Labour Force Estimates	February 2015
What's new in the Labour force	January 2015
What's new in the Labour force	December 2014

Independent Technical Review into the Labour Force Survey and ABS Response	November 2014
What's new in the Labour force	November 2014
Removing the effect of Supplementary Surveys from seasonally	October 2014
adjusted estimates	00.000. 2021
Changes in this and upcoming labour force issues	September 2014
Changes in this and upcoming labour force issues	August 2014
What's new in the Labour force	July 2014
What's new in the Labour force	June 2014
What's new in the Labour force	May 2014
What's new in the Labour force	February 2014
Rebenchmarking Labour Force Estimates to the 2011 Census of	January 2014
Population and Housing	January 2014
What's new in the Labour force	December 2013
Understanding the Australian Labour Force using ABS statistics	December 2013
What's new in the Labour Force	November 2013
Understanding full-time/part-time status in the Labour Force Survey What's new in the Labour Force	September 2013 September 2013
	June 2013
Fact sheet did you know - Underemployment	
What's new in the Labour Force	June 2013
New Labour Force Sample Design	May 2013
Annual Seasonal Reanalysis	May 2013
What's new in Labour Force	May 2013
Transition to online collection of the Labour Force Survey	April 2013
What's new in Labour Force	April 2013
Estimating Jobs in the Australian Labour Market	February 2013
Forthcoming improvements to the content of the Labour Force and	January 2013
Labour Supplementary Surveys	
What's new in Labour Force	January 2013
Understanding the Australian Labour Force using ABS statistics	January 2013
Rebenchmarking of Labour Force Series	November 2012
Upcoming changes to the Labour Force Survey	July 2012
Labour Household Surveys content review and the Labour Force	June 2012
Survey	
Employment and mining in Queensland, New South Wales and Western	May 2012
Australia	
ABS Response to recent concerns expressed about employment	April 2012
estimates	
Population Benchmarks and Labour Force Survey	April 2012
Annual Seasonal Reanalysis	March 2012
Exploring Labour Force Data on joblessness	February 2012
Employment level estimates versus employment to population	January 2012
explained	<b>,</b> -
Understanding the Australian Labour Force using ABS statistics	November 2011
Historical Revisions	February 2011
Impact of the floods on the Labour Force Survey	January 2011
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## **About this Release**

A range of Excel spreadsheets and SuperTABLE datacubes. The monthly spreadsheets contain broad level data covering all the major items of the Labour Force Survey in time series format, including seasonally adjusted and trend estimates. The monthly datacubes contain more detailed and cross classified original data than the spreadsheets.

# **Explanatory Notes**

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Data from the monthly Labour Force Survey are released in two stages. The Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001) and Labour Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003) are part of the second release, and include detailed data not contained in the Labour Force, Australia (cat. no. 6202.0) product set, which is released one week earlier.

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# Time Series Spreadsheet (I-Note) - Time Series Spreadsheet

Due to the flooding in Queensland in January 2011, the relative standard errors for January 2011 will vary across regions and will be higher than normal in some regions. The RSEs for the Darling Downs-South West and Ipswich City Statistical Regions are expected to be approximately 50% higher, while the RSEs for the Brisbane City Inner Ring Statistical Region will increase by approximately 25%. The Brisbane City Outer Ring, West Moreton and Mackay-Fitzroy-Central West Statistical Regions will have RSEs approximately 10% higher. All other regions have minimal differences. However from February 2011, the data returns to normal. Refer to the article Impact of the floods on the Labour Force Survey in January 2011 for more information.

The new labour force sample was phased-in over four months from May to August 2013. See the article on page 10 of the May 2013 issue of Labour Force, Australia (cat. no. 6202.0) for more information. During phase in of the new sample, standard errors associated with key labour force data were expected to increase by approximately 10% at a national level, however increased standard errors and variability in the estimates may be more evident in detailed regional data during this time.

## **Data Cubes (I-Note) - Data Cubes**

Due to the flooding in Queensland in January 2011, the relative standard errors for January 2011 will vary across regions and will be higher than normal in some regions. The RSEs for the Darling Downs-South West and Ipswich City Statistical Regions are expected to be approximately 50% higher, while the RSEs for the Brisbane City Inner Ring Statistical Region will increase by approximately 25%. The Brisbane City Outer Ring, West Moreton and Mackay-Fitzroy-Central West Statistical Regions will have RSEs approximately 10% higher. All other regions have minimal differences. However from February 2011, the data returns to normal. Refer to the article Impact of the floods on the Labour Force Survey in January 2011 for more information.

The new labour force sample was phased-in over four months from May to August 2013. See the article on page 10 of the May 2013 issue of Labour Force, Australia (cat. no. 6202.0) for more information. During phase in of the new sample, standard errors associated with key labour force data were expected to increase by approximately 10% at a national level, however increased standard errors and variability in the estimates may be more evident in detailed regional data during this time.

## **Standard Errors**

Estimates from the Labour Force Survey (LFS) are based on information collected from people in a sample of dwellings, rather than the entire population. Hence the estimates produced may differ from those that would have been produced if the entire population had been included in the survey. The most common measure of the likely difference (or 'sampling error') is the **standard error** (SE).

The ABS considers that estimates with a relative standard error of 25% or more may be subject to sampling variability too high for most practical purposes.

To indicate those cells in spreadsheets with a relative standard error of 25% or more, annotations have been applied prior to dissemination.

In addition, the tables below have been supplied to show estimates at which the relative standard error is 25%. Estimates of the size indicated in the tables, or smaller, are considered to be subject to sampling variability too high for most practical purposes.

Due to the January 2011 flooding in Queensland the relative standard errors for January 2011 will be higher than normal in some regions, therefore for Queensland the estimates at which the relative standard error is 25% will be higher than they appear in the tables below. However from February, the data returns to normal.

The new labour force sample was phased-in over four months from May to August 2013. During phase in of the new sample, standard errors associated with key labour force data were expected to increase by approximately 10% at a national level, however increased standard errors and variability in the estimates may be more evident in detailed regional data during this time.

The RSEs for July 2013 (50% old sample, 50% new sample) and onwards will be subject to revisions in the future, as more information is known about the new sample after it has been introduced.

Additional information on how standard errors for LFS estimates are produced is available in Labour Force Survey Standard Errors, Data Cube (cat. no. 6298.0.55.001).

State	NSW	Vic	Qld	SA	WA	Tas	NT	ACT	Aust
Employed	11011	VIC	Qiu	O/A	***	ius		ΑΟ.	Aust
Feb-78 — Sep-82	4.5	4.5	3.5	2.5	2.5	1.5	1.8	2.0	4.5
Oct-82 — Aug-87	4.0	4.0	3.0	1.8	2.0	1.0	1.8	1.3	3.5
Sep-87 — Feb-89	4.5	4.5	3.0	2.0	2.5	1.3	1.8	1.5	4.0
Mar-89 — Aug-92	4.5	4.5	3.0	2.1	2.3	1.3	2.0	1.4	3.5
Sep-92 — Aug-97	5.3	4.6	3.5	2.4	2.9	1.3	1.3	1.0	4.0
Sep-97 — Sep-98	5.9	4.5	4.1	2.4	2.8	1.1	1.0	1.1	4.4
Oct-98 — Feb-03	5.9 5.9	3.1	3.7	2.5	2.2	1.1	1.3	0.9	5.5
Mar-03 — Oct-07	6.3	3.0	4.4	2.3	2.5	1.3	1.5	1.1	6.6
Nov-07	6.2	3.2	4.3	2.3	2.5	1.3	1.4	1.1	6.4
Dec-07	6.1	3.4	4.3	2.3	2.6	1.3	1.3	1.1	6.2
Jan-08	6.0	3.6	4.2	2.3	2.6	1.3	1.3	1.2	6.0
Feb-08	5.9	3.8	4.2	2.4	2.7	1.3	1.2	1.2	5.9
Mar-08	5.9 5.9	3.6 4.1	4.2 4.2	2.4	3.0	1.2	1.1	1.2	5.9 5.7
							1.0		5. <i>1</i> 5.6
Apr-08	5.8	4.4	4.4	2.5	3.1	1.3		1.3	
May-08	5.7	4.7	4.3	2.5	3.1	1.3	1.0	1.3	5.4
Jun-08	5.5	4.9	4.3	2.5	3.3	1.3	1.0	1.3	5.3
Jul-08 — Aug-09	6.9	6.1	5.3	3.1	4.0	1.5	1.2	1.6	7.4
Sep-09	6.5	5.8	5.0	2.9	3.8	1.5	1.1	1.5	7.0
Oct-09	6.1	5.5	4.7	2.8	3.6	1.4	1.0	1.4	6.5
Nov-09	5.8	5.2	4.5	2.6	3.4	1.3	1.0	1.4	6.2
Dec-09 — Jun-13	5.5	4.9	4.3	2.5	3.3	1.3	1.0	1.3	5.8
Jul-13 — Jan-14	7.7	3.8	5.5	2.7	3.8	1.4	0.3	1.7	7.8
Feb-14 onwards	7.9	3.9	5.6	2.7	3.8	1.4	0.3	1.7	7.9
Unemployed									
Feb-78 — Sep-82	4.5	4.5	3.5	2.5	2.5	1.5	1.8	2.0	4.5
Oct-82 — Aug-87	4.0	4.0	3.0	1.8	2.0	1.0	1.8	1.3	3.5
Sep-87 — Feb-89	4.5	4.5	3.0	2.0	2.5	1.3	1.8	1.5	4.0
Mar-89 — Aug-92	4.5	4.5	3.0	2.1	2.3	1.3	2.0	1.4	3.5
Sep-92 — Aug-97	5.3	4.6	3.5	2.4	2.9	1.3	1.3	1.0	4.0
Sep-97 — Sep-98	5.9	4.5	4.1	2.4	2.8	1.1	1.0	1.1	4.4
Oct-98 — Feb-03	5.7	5.7	4.5	2.6	3.3	1.3	3.2	1.4	4.9
Mar-03 — Oct-07	6.0	5.4	4.9	2.9	3.6	1.6	2.2	1.6	5.2
Nov-07	6.1	5.4	5.0	2.9	3.7	1.6	2.1	1.7	5.2
Dec-07	6.2	5.5	5.0	2.9	3.8	1.7	1.9	1.7	5.2
Jan-08	6.3	5.6	5.0	3.0	4.0	1.7	1.8	1.8	5.2
Feb-08	6.4	5.7	5.1	3.0	4.1	1.7	1.7	1.8	5.1
Mar-08	6.7	5.7	5.2	3.1	4.5	1.8	1.6	1.9	5.1
Apr-08	6.8	5.9	5.5	3.2	4.6	1.9	1.5	1.9	5.2
May-08	6.9	6.0	5.5	3.3	4.8	1.9	1.4	2.0	5.1
Jun-08	7.1	6.1	5.6	3.3	5.0	1.9	1.4	2.1	5.1
Jul-08 — Aug-09	9.3	8.0	7.4	4.4	6.6	2.5	1.8	2.8	7.3
Sep-09	9.3 8.7	7.5	6.8	4.1	6.1	2.4	1.6	2.5	6.8
Oct-09	8.1	7.5 7.0	6.4	3.8	5.7	2.4	1.5	2.5	6.4
Nov-09	7.5	6.5	6.0	3.5	5.3	2.1	1.5	2.2	6.0
Dec-09 — Jun-13	7.1	6.1	5.6	3.3	5.0	1.9	1.4	2.1	5.7
Jul-13 — Jan-14	7.3	6.6	8.4	3.7	5.8	1.7	1.3	2.2	7.1
Feb-14 onwards	7.4	6.7	8.6	3.8	5.9	1.8	1.3	2.3	7.3
NILF									
Feb-78 — Sep-82	4.5	4.5	3.5	2.5	2.5	1.5	1.8	2.0	4.5
Oct-82 — Aug-87	4.0	4.0	3.0	1.8	2.0	1.0	1.8	1.3	3.5

Mar-89 — Aug-92       4.5       4.5       3.0       2.1       2.3       1.3       2.0       1.4       3         Sep-92 — Aug-97       5.3       4.6       3.5       2.4       2.9       1.3       1.3       1.0       4         Sep-97 — Sep-98       5.9       4.5       4.1       2.4       2.8       1.1       1.0       1.1       4         Oct-98 — Feb-03       6.4       3.7       4.1       3.2       2.7       1.2       1.4       1.1       6         Mar-03 — Oct-07       7.8       3.7       5.2       3.0       3.2       1.5       2.0       1.3       7         Nov-07       7.6       3.9       5.1       3.0       3.2       1.5       1.8       1.3       7         Dec-07       7.4       4.1       5.1       3.0       3.2       1.5       1.8       1.3       7         Dec-07       7.4       4.1       5.1       3.0       3.3       1.5       1.7       1.4       6         Jan-08       7.1       4.7       5.0       3.1       3.5       1.5       1.5       1.4       6         Mar-08       7.1       5.0       4.9       3	4.0 3.5 4.4 6.0 7.0 8.6 6.3 6.3 7.0 8.6 6.3 7.0 8.6 6.3 7.0 8.6 6.3 7.0 8.6 6.3 7.0 8.6 6.3 7.0 8.6 6.3 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.6 7.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8.0 8
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Greater Capital City Statistical Areas	Feb-78 — Sep-82	Oct-82 — Aug-87	Sep-87 — Feb-89	Mar-89 — Aug-92	Sep-92 — Aug-97	Sep-97 — Sep-98	- Oct-98  Feb-03
Greater Sydney	4.5	4.0	4.5	4.5	5.3	5.7	5.8
Rest of NSW	4.5	4.0	4.5	4.5	5.3	5.7	5.8
Greater Melbourne	4.5	4.0	4.5	4.5	4.6	4.6	3.3
Rest of Victoria	4.5	4.0	4.5	4.5	4.6	4.3	3.2
Greater Brisbane	3.5	3.0	3.0	3.0	3.5	3.7	3.4
Rest of Queensland	3.5	3.0	3.0	3.0	3.6	4.3	3.6
Greater Adelaide	2.5	1.8	2.0	2.1	2.4	2.4	2.7
Rest of South Australia	2.5	1.8	2.0	2.1	2.5	2.2	2.5
Greater Perth	2.5	2.0	2.5	2.3	2.9	2.6	2.3
Rest of Western	2.5	2.0	2.5	2.3	2.9	2.8	2.2
Australia							
Greater Hobart	1.5	1.0	1.3	1.3	1.3	1.1	0.9
Rest of Tasmania	1.5	1.0	1.3	1.3	1.3	1.1	1.1
	Mar-03	Mar-08	Jul-08 –	-Nov-09	Jul-13 —	-Feb-14	
	_		Oct-09		Jan-14	onwards	
	Feb-08	Jun-08		Jun-13			
Greater Sydney	6.5	5.7	7.1	5.7	7.6	7.7	
Rest of NSW	6.4	5.6	7.0	5.6	7.5	7.6	
Greater Melbourne	3.2	5.1	6.4	5.1	4.0	4.0	
Rest of Victoria	3.1	5.0	6.3	5.0	3.9	3.9	
Greater Brisbane	4.1	4.0	5.0	4.0	5.9	6.0	
Rest of Queensland	4.4	4.3	5.4	4.3	6.3	6.4	
Greater Adelaide	2.5	2.7	3.4	2.7	3.0	3.0	
Rest of South Australia	2.4	2.5	3.1	2.5	2.8	2.8	
Greater Perth	2.6	3.5	4.3	3.5	3.9	4.0	
Rest of Western Australia	2.5	3.3	4.1	3.3	3.7	3.8	
Greater Hobart	1.1	1.1	1.4	1.1	1.3	1.3	

Regions         Colspan="6">Image of the peak	Rest of Tasmania	1.3	1.3	1.6	1.3	1.5	1.5	
Feb-03   Feb-04   Sun-05   Sun-05   Sun-14   S	Statistical Area Level 4	Oct-98	Mar-03	Mar-08	Jul-08	Nov-09	Jul-13	Feb-14
Central Coast   7.4   8.5   7.2   9.4   7.2   10.2   10.4	Regions	_	_	_	_	_	_	onwards
Sydney - Baulkham Hills 7.2   8.3   7.0   9.2   7.0   10.0   10.2		Feb-03	Feb-08	Jun-08	Oct-09	Jun-13	Jan-14	
And Hawkesbury   Sydney - Blacktown   7.3   8.3   7.1   9.3   7.1   10.0   10.2   Sydney - City and Inner   8.5   9.7   8.3   10.8   8.3   11.7   11.9   South   Sydney - Eastern   9.6   11.0   9.3   12.2   9.3   13.1   13.4   Sydney - Inner South   7.3   8.4   7.1   9.3   7.1   10.1   10.3   West   Sydney - North Sydney   7.6   8.6   7.3   9.6   7.3   10.4   10.6   And Hornsby   Sydney - Northern   7.8   8.9   7.6   9.9   7.6   10.7   10.9   Beaches   Sydney - Outer South   7.3   8.4   7.1   9.3   7.1   10.1   10.3   West   Sydney - Outer South   7.3   8.4   7.1   9.3   7.1   10.1   10.3   West   Sydney - Outer West   7.3   8.3   7.1   9.3   7.1   10.0   10.2   and Blue Mountains   Sydney - Suth West   7.5   8.6   7.3   9.6   7.3   10.4   10.6   Sydney - Parramatta   7.8   8.9   7.6   9.9   7.6   10.8   11.0   Sydney - South West   7.5   8.6   7.3   9.6   7.3   10.4   10.6   Sydney - Sutherland   7.4   8.4   7.2   9.4   7.2   10.1   10.3   Central West   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7.4   10.5   10.7   Coffs Harbour - Grafton   7.6   8.7   7.4   9.7   7	Central Coast	7.4	8.5	7.2	9.4	7.2	10.2	10.4
Sydney - City and Inner   8.5   9.7   8.3   7.1   10.8   8.3   11.7   11.9	Sydney - Baulkham Hills	7.2	8.3	7.0	9.2	7.0	10.0	10.2
Sydney - City and Inner         8.5         9.7         8.3         10.8         8.3         11.7         11.9           South Sydney - Eastern         9.6         11.0         9.3         12.2         9.3         13.1         13.4           Sydney - Inner South         7.3         8.4         7.1         9.3         7.1         10.1         10.3           West         Sydney - Inner West         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - Northern         7.8         8.9         7.6         9.9         7.6         10.7         10.9           Beaches         Sydney - Outer South         7.3         8.4         7.1         9.3         7.1         10.1         10.3           West         Sydney - Outer West         7.3         8.3         7.1         9.3         7.1         10.0         10.2           Sydney - Outer West         7.3         8.3         7.1         9.3         7.1         10.0         10.2           Sydney - Outer West         7.3         8.8         7.5         9.8         7.5         10.6         10.8         11.0           Sydney - South West         7.5         8.6 <t< td=""><td>and Hawkesbury</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	and Hawkesbury							
South   Sydney - Eastern   Sydney - Inner South   7.3   8.4   7.1   9.3   7.1   10.1   10.3	-		8.3					
Sydney - Eastern   9.6   11.0   9.3   12.2   9.3   13.1   13.4	Sydney - City and Inner	8.5	9.7	8.3	10.8	8.3	11.7	11.9
Suburbs   Sydney - Inner South   7.3   8.4   7.1   9.3   7.1   10.1   10.3								
Sydney - Inner South   7.3   8.4   7.1   9.3   7.1   10.1   10.3		9.6	11.0	9.3	12.2	9.3	13.1	13.4
West         Sydney - Inner West         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - North Sydney         7.6         8.6         7.3         9.6         7.3         10.4         10.6           and Hornsby         Sydney - Northern         7.8         8.9         7.6         9.9         7.6         10.7         10.9           Beaches         Sydney - Outer South         7.3         8.4         7.1         9.3         7.1         10.1         10.3           West         Sydney - Outer West         7.3         8.3         7.1         9.3         7.1         10.0         10.2           and Blue Mountains         Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - South West         7.5         8.6         7.3         9.8         7.5         10.6         10.8           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sutherland         7.4<								
Sydney - Inner West         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - North Sydney         7.6         8.6         7.3         9.6         7.3         10.4         10.6           and Hornsby         Sydney - Northern         7.8         8.9         7.6         9.9         7.6         10.7         10.9           Beaches         Sydney - Outer South         7.3         8.4         7.1         9.3         7.1         10.1         10.3           West         Sydney - Outer West         7.3         8.3         7.1         9.3         7.1         10.0         10.2           sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Sutherland         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - Sutherland         7.4         8.7         7.4 <t< td=""><td>-</td><td>7.3</td><td>8.4</td><td>7.1</td><td>9.3</td><td>7.1</td><td>10.1</td><td>10.3</td></t<>	-	7.3	8.4	7.1	9.3	7.1	10.1	10.3
Sydney - North Sydney         7.6         8.6         7.3         9.6         7.3         10.4         10.6           sydney - Northern         7.8         8.9         7.6         9.9         7.6         10.7         10.9           Beaches         Sydney - Outer South         7.3         8.4         7.1         9.3         7.1         10.1         10.3           West         Sydney - Outer West         7.3         8.3         7.1         9.3         7.1         10.0         10.2           and Blue Mountains         Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sutherland         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Capital Region         7.2         8.2         7.0         <								
and Hornsby         Sydney - Northern         7.8         8.9         7.6         9.9         7.6         10.7         10.9           Beaches         Sydney - Outer South         7.3         8.4         7.1         9.3         7.1         10.1         10.3           West         Sydney - Outer West         7.3         8.3         7.1         9.3         7.1         10.0         10.2           and Blue Mountains         Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Sydthey Mountains         Sydney - Sydrey South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sydtherland         7.4         8.4         7.2         9.8         7.5         10.6         10.8           Sydney - Sutherland         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Sydney - Sutherland         7.4         8.4         7.2         9.4         7.2         10.1         10.6           Sydney - Guth	-							
Sydney - Northern   7.8   8.9   7.6   9.9   7.6   10.7   10.9		7.6	8.6	7.3	9.6	7.3	10.4	10.6
Beaches   Sydney - Outer South   7.3   8.4   7.1   9.3   7.1   10.1   10.3	,							
Sydney - Outer South Vest         7.3         8.4         7.1         9.3         7.1         10.1         10.3           Sydney - Outer West Sydney - Outer West And Blue Mountains         8.3         7.1         9.3         7.1         10.0         10.2           Sydney - Parramatta 7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Ryde 7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - South West 7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sutherland 7.4         8.4         7.2         9.4         7.2         10.1         10.3           Capital Region 7.2         8.2         7.0         9.2         7.0         9.9         10.1           Central West 7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton 7.6         8.7         7.4         9.7         7.4         10.5         10.7           Far West and Orana 7.4         8.4         7.2         9.4         7.2         10.1         10.3           Hunter Valley exc 7.1         8.1         6.9         9.0 <t< td=""><td></td><td>7.8</td><td>8.9</td><td>7.6</td><td>9.9</td><td>7.6</td><td>10.7</td><td>10.9</td></t<>		7.8	8.9	7.6	9.9	7.6	10.7	10.9
West         Sydney - Outer West         7.3         8.3         7.1         9.3         7.1         10.0         10.2           and Blue Mountains         Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Ryde         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - South West         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Capital Region         7.2         8.2         7.0         9.2         7.0         9.9         10.1           Capital Region         7.2         8.2         7.4         9.7         7.4								
Sydney - Outer West and Blue Mountains         7.3         8.3         7.1         9.3         7.1         10.0         10.2           Sydney - Parramatta 7.8         8.8         7.6         10.0         7.6         10.8         11.0           Sydney - Ryde 7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - South West 7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sutherland 7.4         8.4         7.2         9.4         7.2         10.1         10.3           Capital Region 7.2         8.2         7.0         9.2         7.0         9.9         10.1           Central West 7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton 7.6         8.7         7.4         9.7         7.4         10.5         10.7           Far West and Orana 7.4         8.4         7.2         9.4         7.2         10.1         10.3           Hunter Valley exc 7.1         8.1         6.9         9.0         6.9         9.8         10.0           Newcastle         11         8.7         7.4         9.7         7.4		7.3	8.4	7.1	9.3	7.1	10.1	10.3
and Blue Mountains         Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Ryde         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sutherland         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Capital Region         7.2         8.2         7.0         9.2         7.0         9.9         10.1           Central West         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Far West and Orana         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Hunter Valley exc         7.1         8.1         6.9         9.0         6.9         9.8         10.0           Newcastle         1llawarra         7.6         8.6         7.3         9.6         7.3         1								
Sydney - Parramatta         7.8         8.9         7.6         10.0         7.6         10.8         11.0           Sydney - Ryde         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - South West         7.6         8.7         7.3         9.6         7.3         10.4         10.6           Sydney - South West         7.6         8.7         7.4         9.7         7.0         10.1         10.3           Capital Region         7.2         8.2         7.0         9.2         7.0         9.9         10.1           Central West         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Far West and Orana         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Hunter Valley exc         7.1         8.1         6.9         9.0         6.9         9.8         10.0	-	7.3	8.3	7.1	9.3	7.1	10.0	10.2
Sydney - Ryde         7.7         8.8         7.5         9.8         7.5         10.6         10.8           Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sutherland         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Capital Region         7.2         8.2         7.0         9.2         7.0         9.9         10.1           Central West         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Far West and Orana         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Hunter Valley exc         7.1         8.1         6.9         9.0         6.9         9.8         10.0           Newcastle         7.6         8.6         7.3         9.6         7.3         10.3         10.6           Murray         7.6         8.6         7.4         9.7         7.4         10.5         10.7           West								
Sydney - South West         7.5         8.6         7.3         9.6         7.3         10.4         10.6           Sydney - Sutherland         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Capital Region         7.2         8.2         7.0         9.2         7.0         9.9         10.1           Central West         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Far West and Corna         7.4         8.4         7.2         9.0         6.9         9.8         10.0           Newcastle         Illawarra         7.6         8.7         7.4         9.7         7.4         10.5         10.7           West         Newcastle and Lake         7.1         8.1         6.9         9.0         6.9         9	-							
Sydney - Sutherland         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Capital Region         7.2         8.2         7.0         9.2         7.0         9.9         10.1           Central West         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Coffs Harbour - Grafton         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Far West and Orana         7.4         8.4         7.2         9.4         7.2         10.1         10.3           Hunter Valley exc         7.1         8.1         6.9         9.0         6.9         9.8         10.0           New Castle         11         8.1         6.9         9.0         6.9         9.8         10.0           Murray         7.6         8.6         7.3         9.6         7.3         10.3         10.6           Murray         7.6         8.6         7.4         9.6         7.4         10.5         10.7           West         New England and North 7.6         8.7         7.4         9.7         7.4         10.5         10.7           West								
Capital Region 7.2 8.2 7.0 9.2 7.0 9.9 10.1 Central West 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Coffs Harbour - Grafton 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Far West and Orana 7.4 8.4 7.2 9.4 7.2 10.1 10.3 Hunter Valley exc 7.1 8.1 6.9 9.0 6.9 9.8 10.0 Newcastle Illawarra 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Mid North Coast 7.5 8.6 7.3 9.6 7.3 10.3 10.6 Murray 7.6 8.6 7.4 9.6 7.4 10.4 10.6 New England and North 7.6 8.7 7.4 9.7 7.4 10.5 10.7 West Newcastle and Lake 7.1 8.1 6.9 9.0 6.9 9.8 9.9 Macquarie Richmond - Tweed 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Riverina 7.6 8.6 7.4 9.6 7.4 10.4 10.6 Southern Highlands and 9.0 10.3 8.7 11.4 8.7 12.3 12.6 Shoalhaven Melbourne - Inner 4.1 3.9 7.2 9.4 7.2 5.2 5.3 Melbourne - Inner South 3.7 3.5 6.4 8.4 6.4 4.7 4.8 Melbourne - North East 3.8 3.6 6.6 8.6 6.6 4.8 4.9 Melbourne - North West 3.7 3.6 6.5 8.6 6.5 4.7 4.8 Melbourne - North West 3.7 3.6 6.5 8.6 6.5 4.7 4.8 Melbourne - South East 3.8 3.6 6.6 8.7 6.6 4.8 4.9 Melbourne - South East 3.8 3.6 6.6 8.7 6.6 4.8 4.9 Melbourne - West 3.5 3.4 6.1 8.1 6.1 4.4 4.5 Mornington Peninsula 3.6 3.5 6.4 8.3 6.4 4.6								
Central West 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Coffs Harbour - Grafton 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Far West and Orana 7.4 8.4 7.2 9.4 7.2 10.1 10.3 Hunter Valley exc 7.1 8.1 6.9 9.0 6.9 9.8 10.0 Newcastle Illawarra 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Mid North Coast 7.5 8.6 7.3 9.6 7.3 10.3 10.6 Murray 7.6 8.6 7.4 9.6 7.4 10.4 10.6 New England and North 7.6 8.7 7.4 9.7 7.4 10.5 10.7 West Newcastle and Lake 7.1 8.1 6.9 9.0 6.9 9.8 9.9 Macquarie Richmond - Tweed 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Riverina 7.6 8.6 7.4 9.6 7.4 10.4 10.6 Southern Highlands and 9.0 10.3 8.7 11.4 8.7 12.3 12.6 Shoalhaven Melbourne - Inner 4.1 3.9 7.2 9.4 7.2 5.2 5.3 Melbourne - Inner South 3.7 3.5 6.4 8.4 6.4 4.7 4.8 Melbourne - North East 3.8 3.6 6.6 8.6 6.5 4.7 4.8 Melbourne - North West 3.7 3.6 6.5 8.6 6.5 4.7 4.8 Melbourne - South East 3.8 3.6 6.6 8.7 6.6 4.8 4.9 Melbourne - South East 3.6 3.4 6.3 8.3 6.3 4.6 4.7 Melbourne - West 3.5 3.4 6.1 8.1 6.1 4.4 4.5 Mornington Peninsula 3.6 3.5 6.4 8.3 6.4 4.6	• •							
Coffs Harbour - Grafton 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Far West and Orana 7.4 8.4 7.2 9.4 7.2 10.1 10.3 Hunter Valley exc 7.1 8.1 6.9 9.0 6.9 9.8 10.0 Newcastle Illawarra 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Mid North Coast 7.5 8.6 7.3 9.6 7.3 10.3 10.6 Murray 7.6 8.6 7.4 9.7 7.4 10.5 10.7 West England and North 7.6 8.7 7.4 9.7 7.4 10.5 10.7 West Newcastle and Lake 7.1 8.1 6.9 9.0 6.9 9.8 9.9 Macquarie Richmond - Tweed 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Riverina 7.6 8.6 7.4 9.6 7.4 10.4 10.6 Southern Highlands and 9.0 10.3 8.7 11.4 8.7 12.3 12.6 Shoalhaven Melbourne - Inner A.1 3.9 7.2 9.4 7.2 5.2 5.3 Melbourne - Inner South 3.7 3.5 6.4 8.4 6.4 4.7 Melbourne - North East 3.8 3.6 6.6 8.6 6.5 4.7 4.8 Melbourne - North West 3.7 3.6 6.5 8.6 6.5 4.7 4.8 Melbourne - South East 3.8 3.6 6.6 8.7 6.6 4.8 4.9 Melbourne - South East 3.8 3.4 6.1 8.1 6.1 4.4 4.5 Mornington Peninsula 3.6 3.5 6.4 8.3 6.4 4.6								
Far West and Orana 7.4 8.4 7.2 9.4 7.2 10.1 10.3 Hunter Valley exc 7.1 8.1 6.9 9.0 6.9 9.8 10.0 Newcastle Illawarra 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Mid North Coast 7.5 8.6 7.3 9.6 7.3 10.3 10.6 Murray 7.6 8.6 7.4 9.6 7.4 10.4 10.6 New England and North 7.6 8.7 7.4 9.7 7.4 10.5 10.7 West Newcastle and Lake 7.1 8.1 6.9 9.0 6.9 9.8 9.9 Macquarie Richmond - Tweed 7.6 8.6 7.4 9.6 7.4 10.5 10.7 Riverina 7.6 8.6 7.4 9.6 7.4 10.4 10.6 Southern Highlands and 9.0 10.3 8.7 11.4 8.7 12.3 12.6 Shoalhaven Melbourne - Inner 4.1 3.9 7.2 9.4 7.2 5.2 5.3 Melbourne - Inner East 3.6 3.4 6.2 8.2 6.2 4.5 4.6 Melbourne - North East 3.8 3.6 6.6 8.6 6.5 4.7 4.8 Melbourne - North West 3.7 3.6 6.5 8.6 6.5 4.7 4.8 Melbourne - Outer East 3.8 3.6 6.6 8.7 6.6 4.8 4.9 Melbourne - South East 3.6 3.4 6.1 8.1 6.1 4.4 4.5 Mornington Peninsula 3.6 3.5 6.4 8.3 6.4 4.6 4.7						7.4		
Hunter Valley exc 7.1 8.1 6.9 9.0 6.9 9.8 10.0 Newcastle Illawarra 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Mid North Coast 7.5 8.6 7.3 9.6 7.3 10.3 10.6 Murray 7.6 8.6 7.4 9.6 7.4 10.4 10.6 New England and North 7.6 8.7 7.4 9.7 7.4 10.5 10.7 West								
Newcastle Illawarra 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Mid North Coast 7.5 8.6 7.3 9.6 7.3 10.3 10.6 Murray 7.6 8.6 7.4 9.6 7.4 10.4 10.6 New England and North 7.6 8.7 7.4 9.7 7.4 10.5 10.7 West Newcastle and Lake 7.1 8.1 6.9 9.0 6.9 9.8 9.9 Macquarie Richmond - Tweed 7.6 8.7 7.4 9.7 7.4 10.5 10.7 Riverina 7.6 8.6 7.4 9.6 7.4 10.4 10.6 Southern Highlands and 9.0 10.3 8.7 11.4 8.7 12.3 12.6 Shoalhaven Melbourne - Inner 4.1 3.9 7.2 9.4 7.2 5.2 5.3 Melbourne - Inner South 3.7 3.5 6.4 8.4 6.4 4.7 4.8 Melbourne - North East 3.8 3.6 6.6 8.6 6.5 4.7 4.8 Melbourne - North West 3.7 3.6 6.5 8.6 6.5 4.7 4.8 Melbourne - Outer East 3.8 3.6 6.6 8.7 6.6 4.8 4.9 Melbourne - South East 3.6 3.4 6.3 8.3 6.3 4.6 4.7 Melbourne - West 3.5 3.4 6.1 8.1 6.1 4.4 4.5 Mornington Peninsula 3.6 3.5 6.4 8.3 6.4 4.6 4.7								
Illawarra	-	7.1	8.1	6.9	9.0	6.9	9.8	10.0
Mid North Coast         7.5         8.6         7.3         9.6         7.3         10.3         10.6           Murray         7.6         8.6         7.4         9.6         7.4         10.4         10.6           New England and North 7.6         8.7         7.4         9.7         7.4         10.5         10.7           West         Newcastle and Lake         7.1         8.1         6.9         9.0         6.9         9.8         9.9           Macquarie         Richmond - Tweed         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Riverina         7.6         8.6         7.4         9.7         7.4         10.5         10.7           Riverina         7.6         8.6         7.4         9.7         7.4         10.5         10.7           Riverina         7.6         8.6         7.4         9.6         7.4         10.4         10.6           Southern Highlands and 9.0         10.3         8.7         11.4         8.7         12.3         12.6           Shoalhaven         Melbourne - Inner East 3.6         3.4         6.2         8.2         6.2         4.5         4.6								
Murray         7.6         8.6         7.4         9.6         7.4         10.4         10.6           New England and North 7.6         8.7         7.4         9.7         7.4         10.5         10.7           West         Newcastle and Lake         7.1         8.1         6.9         9.0         6.9         9.8         9.9           Macquarie         Richmond - Tweed         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Riverina         7.6         8.6         7.4         9.7         7.4         10.4         10.6           Southern Highlands and 9.0         10.3         8.7         11.4         8.7         12.3         12.6           Shoalhaven         <								
New England and North 7.6         8.7         7.4         9.7         7.4         10.5         10.7           West         Newcastle and Lake         7.1         8.1         6.9         9.0         6.9         9.8         9.9           Macquarie         Richmond - Tweed         7.6         8.7         7.4         9.7         7.4         10.5         10.7           Riverina         7.6         8.6         7.4         9.6         7.4         10.4         10.6           Southern Highlands and 9.0         10.3         8.7         11.4         8.7         12.3         12.6           Shoalhaven         Nelbourne - Inner         4.1         3.9         7.2         9.4         7.2         5.2         5.3           Melbourne - Inner East         3.6         3.4         6.2         8.2         6.2         4.5         4.6           Melbourne - Inner South 3.7         3.5         6.4         8.4         6.4         4.7         4.8           Melbourne - North East         3.8         3.6         6.5         8.6         6.5         4.7         4.8           Melbourne - Outer East         3.8         3.6         6.6         8.7         6.6         4.8								
West       Newcastle and Lake       7.1       8.1       6.9       9.0       6.9       9.8       9.9         Macquarie       Richmond - Tweed       7.6       8.7       7.4       9.7       7.4       10.5       10.7         Riverina       7.6       8.6       7.4       9.6       7.4       10.4       10.6         Southern Highlands and 9.0       10.3       8.7       11.4       8.7       12.3       12.6         Shoalhaven         Melbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - North East       3.8       3.6       6.6       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6	-							
Newcastle and Lake       7.1       8.1       6.9       9.0       6.9       9.8       9.9         Macquarie       Richmond - Tweed       7.6       8.7       7.4       9.7       7.4       10.5       10.7         Riverina       7.6       8.6       7.4       9.6       7.4       10.4       10.6         Southern Highlands and 9.0       10.3       8.7       11.4       8.7       12.3       12.6         Shoalhaven       Melbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - Inner South 3.7       3.5       6.4       8.4       6.4       4.7       4.8         Melbourne - North East       3.8       3.6       6.6       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Melbourne - West       3.5       3.4       6.1       8.1 <td></td> <td>7.6</td> <td>8.7</td> <td>7.4</td> <td>9.7</td> <td>7.4</td> <td>10.5</td> <td>10.7</td>		7.6	8.7	7.4	9.7	7.4	10.5	10.7
Macquarie       Richmond - Tweed       7.6       8.7       7.4       9.7       7.4       10.5       10.7         Riverina       7.6       8.6       7.4       9.6       7.4       10.4       10.6         Southern Highlands and 9.0       10.3       8.7       11.4       8.7       12.3       12.6         Shoalhaven       Welbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - Inner South 3.7       3.5       6.4       8.4       6.4       4.7       4.8         Melbourne - North East       3.8       3.6       6.6       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       6.4       8.3       6.4			0.4				• •	
Richmond - Tweed       7.6       8.7       7.4       9.7       7.4       10.5       10.7         Riverina       7.6       8.6       7.4       9.6       7.4       10.4       10.6         Southern Highlands and 9.0       10.3       8.7       11.4       8.7       12.3       12.6         Shoalhaven       Melbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - North East       3.8       3.6       6.6       8.6       6.6       4.8       4.9         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7		7.1	8.1	6.9	9.0	6.9	9.8	9.9
Riverina       7.6       8.6       7.4       9.6       7.4       10.4       10.6         Southern Highlands and 9.0       10.3       8.7       11.4       8.7       12.3       12.6         Shoalhaven       Melbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - Inner South 3.7       3.5       6.4       8.4       6.4       4.7       4.8         Melbourne - North East       3.8       3.6       6.6       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7	•	7.0	0.7	<b>-</b> 4	0.7	<b>-</b> 4	40.5	40.7
Southern Highlands and 9.0       10.3       8.7       11.4       8.7       12.3       12.6         Shoalhaven       Melbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - Inner South       3.7       3.5       6.4       8.4       6.4       4.7       4.8         Melbourne - North East       3.8       3.6       6.6       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Shoalhaven         Melbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - Inner South       3.7       3.5       6.4       8.4       6.4       4.7       4.8         Melbourne - North East       3.8       3.6       6.6       8.6       6.5       4.7       4.8         Melbourne - North West       3.7       3.6       6.5       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Melbourne - Inner       4.1       3.9       7.2       9.4       7.2       5.2       5.3         Melbourne - Inner East       3.6       3.4       6.2       8.2       6.2       4.5       4.6         Melbourne - Inner South       3.7       3.5       6.4       8.4       6.4       4.7       4.8         Melbourne - North East       3.8       3.6       6.6       8.6       6.5       4.7       4.8         Melbourne - North West       3.7       3.6       6.5       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7		9.0	10.3	8.7	11.4	8.7	12.3	12.6
Melbourne - Inner East3.63.46.28.26.24.54.6Melbourne - Inner South3.73.56.48.46.44.74.8Melbourne - North East3.83.66.68.66.64.84.9Melbourne - North West3.73.66.58.66.54.74.8Melbourne - Outer East3.83.66.68.76.64.84.9Melbourne - South East3.63.46.38.36.34.64.7Melbourne - West3.53.46.18.16.14.44.5Mornington Peninsula3.63.56.48.36.44.64.7								
Melbourne - Inner South 3.7       3.5       6.4       8.4       6.4       4.7       4.8         Melbourne - North East 3.8       3.6       6.6       8.6       6.6       4.8       4.9         Melbourne - North West 3.7       3.6       6.5       8.6       6.5       4.7       4.8         Melbourne - Outer East 3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East 3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West 3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula 3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Melbourne - North East       3.8       3.6       6.6       8.6       6.6       4.8       4.9         Melbourne - North West       3.7       3.6       6.5       8.6       6.5       4.7       4.8         Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Melbourne - North West 3.7       3.6       6.5       8.6       6.5       4.7       4.8         Melbourne - Outer East 3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East 3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West 3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula 3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Melbourne - Outer East       3.8       3.6       6.6       8.7       6.6       4.8       4.9         Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Melbourne - South East       3.6       3.4       6.3       8.3       6.3       4.6       4.7         Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Melbourne - West       3.5       3.4       6.1       8.1       6.1       4.4       4.5         Mornington Peninsula       3.6       3.5       6.4       8.3       6.4       4.6       4.7								
Mornington Peninsula 3.6 3.5 6.4 8.3 6.4 4.6 4.7								
-								
Ballarat 4.0 3.8 6.9 9.1 6.9 5.0 5.1	•							
	Ballarat	4.0	3.8	6.9	9.1	6.9	5.0	5.1

Bendigo	3.8	3.7	6.7	8.8	6.7	4.9	5.0
Geelong	3.7	3.5	6.5	8.5	6.5	4.7	4.8
Hume	4.3	4.1	7.4	9.7	7.4	5.4	5.5
Latrobe - Gippsland	4.1	3.9	7.2	9.4	7.2	5.2	5.3
North West	3.9	3.7	6.8	8.9	6.8	4.9	5.0
Shepparton	4.3	4.1	7.4	9.7	7.4	5.4	5.5
• •		3.5	6.5		6.5		
Warrnambool and South	13.1	3.5	0.5	8.5	0.5	4.7	4.8
West							
Brisbane - East	4.1	5.1	5.1	6.7	5.1	8.1	8.2
Brisbane - North	4.1	5.2	5.1	6.7	5.1	8.1	8.3
Brisbane - South	4.2	5.2	5.2	6.8	5.2	8.2	8.4
Brisbane - West	4.1	5.2	5.1	6.7	5.1	8.2	8.3
Brisbane Inner City	4.2	5.3	5.3	6.9	5.3	8.4	8.6
Ipswich	4.0	5.0	5.0	6.5	5.0	7.9	8.1
Logan - Beaudesert	4.3	5.4	5.3	7.0	5.3	8.4	8.6
Moreton Bay - North	3.9	4.9	4.8	6.4	4.8	7.7	7.9
Moreton Bay - South	3.9	4.9	4.8	6.3	4.8	7.7	7.9
Cairns	4.9	6.2	6.1	8.0	6.1	9.7	9.9
Darling Downs -	4.6	5.8	5.7	7.5	5.7	9.1	9.3
Maranoa	4.0	5.0	5.1	1.5	5.1	9.1	9.5
	4.2	5.3	5.2	6.9	5.2	8.3	8.5
Fitzroy							
Gold Coast	4.3	5.5	5.4	7.1	5.4	8.6	8.7
Mackay	4.2	5.3	5.2	6.9	5.2	8.3	8.5
Queensland - Outback	4.7	5.9	5.8	7.6	5.8	9.2	9.4
Sunshine Coast	4.3	5.4	5.3	7.0	5.3	8.5	8.7
Toowoomba	4.6	5.8	5.7	7.5	5.7	9.0	9.2
Townsville	4.7	5.9	5.8	7.6	5.8	9.2	9.4
Wide Bay	4.6	5.8	5.7	7.5	5.7	9.0	9.2
Adelaide - Central and	3.3	3.1	3.3	4.3	3.3	3.7	3.8
Hills							
Adelaide - North	3.3	3.0	3.3	4.3	3.3	3.7	3.8
Adelaide - South	3.4	3.1	3.4	4.4	3.4	3.8	3.9
Adelaide - West	3.7	3.4	3.7	4.8	3.7	4.1	4.2
Barossa - Yorke - Mid	3.5	3.2	3.5	4.5	3.5	3.9	4.0
North	3.3	5.2	3.3	4.5	3.3	3.3	4.0
South Australia -	3.7	3.4	3.7	4.8	3.7	4.1	4.2
	3.1	3.4	3.1	4.0	3.1	4.1	4.2
Outback	2.1	2.0	2.1	4.0	0.1	2 5	2.5
South Australia - South	3.⊥	2.8	3.1	4.0	3.1	3.5	3.5
East							
Mandurah	2.4	2.8	4.0	5.2	4.0	4.6	4.7
Perth - Inner	3.1	3.5	4.9	6.5	4.9	5.8	5.9
Perth - North East	2.9	3.3	4.6	6.1	4.6	5.4	5.5
Perth - North West	2.8	3.2	4.5	5.9	4.5	5.2	5.3
Perth - South East	2.9	3.3	4.7	6.1	4.7	5.5	5.6
Perth - South West	2.7	3.1	4.3	5.7	4.3	5.0	5.1
Bunbury	2.4	2.8	4.0	5.2	4.0	4.6	4.7
Western Australia -	2.8	3.3	4.6	6.0	4.6	5.4	5.5
Outback		0.0		0.0		· · ·	0.0
Western Australia -	2.6	3.0	4.2	5.5	4.2	4.9	5.0
Wheat Belt	2.0	0.0	<b>⊣.∠</b>	0.0	7.2	4.5	5.0
	0.0	1 1	1 1	1 4	1 1	1.0	1.0
Greater Hobart	0.9	1.1	1.1	1.4	1.1	1.3	1.3
Launceston and North	1.3	1.5	1.5	1.9	1.5	1.7	1.8
East				_			
Tasmania - South East	1.6	1.9	1.9	2.4	1.9	2.2	2.2

Tasmania - West and	1.3	1.6	1.6	2.0	1.6	1.8	1.8
North West							
Darwin	1.4	1.7	1.0	1.3	1.0	0.9	0.9
Northern Territory -	1.4	1.7	1.0	1.3	1.0	0.9	0.9
Outback							

## **Quality Declaration - Summary**

## **QUALITY DECLARATION - SUMMARY**

## **INSTITUTIONAL ENVIRONMENT**

Labour Force statistics are compiled from the Labour Force Survey which is conducted each month throughout Australia as part of the Australian Bureau of Statistics (ABS) household survey program. For information on the institutional environment of the ABS, including the legislative obligations of the ABS, financing and governance arrangements, and mechanisms for scrutiny of ABS operations, please see ABS Institutional Environment.

#### **RELEVANCE**

The Labour Force Survey provides monthly information about the labour market activity of Australia's resident civilian population aged 15 years and over. The Labour Force Survey is designed to primarily provide estimates of employment and unemployment for the whole of Australia and, secondarily, for each state and territory.

## **TIMELINESS**

The Labour Force Survey enumeration begins on the Sunday between the 5th and 11th of the month, except for the Christmas and New Year holiday period. In December enumerations starts between the 3rd and 9th (4 weeks after November enumeration begins). In January enumeration starts between the 7th and 13th (5 weeks after December enumeration begins).

Key estimates from the Labour Force Survey are published in two stages. The first, Labour Force, Australia (cat. no. 6202.0), is released 39 days after the commencement of enumeration for the month, with the exception of estimates for December which are published 46 days after the commencement of enumeration.

The second stage includes detailed data that were not part of the first stage and are published in Labour Force, Australia, Detailed - Electronic Delivery (cat. no. 6291.0.55.001) and Labour Force, Australia, Detailed, Quarterly (cat. no. 6291.0.55.003). The second stage is released 7 days after the first stage.

## **ACCURACY**

The Labour Force Survey is based on a sample of private dwellings (approximately 26,000 houses, flats etc) and non-private dwellings, such as hotels and motels. The sample covers about 0.32% of the Australian civilian population aged 15 years or over. The Labour Force Survey is designed primarily to provide estimates of key labour force statistics for the whole

of Australia and, secondarily, for each state and territory.

Two types of error are possible in an estimate based on a sample survey: non-sampling error and sampling error.

Non-sampling error arises from inaccuracies in collecting, recording and processing the data. Every effort is made to minimise reporting error by the careful design of questionnaires, intensive training and supervision of interviewers, and efficient data processing procedures. Non-sampling error also arises because information cannot be obtained from all persons selected in the survey. The Labour Force Survey receives a high level of cooperation, with an average response rate for the last year being 93%.

Sampling error occurs because a sample, rather than the entire population, is surveyed. One measure of the likely difference resulting from not including all dwellings in the survey is given by the standard error. There are about two chances in three that a sample estimate will differ by less than one standard error from the figure that would have been obtained if all dwellings had been included in the survey, and about nineteen chances in twenty that the difference will be less than two standard errors.

Standard errors of key estimates and movements since the previous month are available in Labour Force, Australia (cat. no. 6202.0). The standard error of other estimates and movements may be calculated by using the spreadsheet contained in Labour Force Survey Standard Errors, Data Cube (cat. no. 6298.0.55.001).

#### **COHERENCE**

The ABS has been conducting the Labour Force Survey each month since February 1978. While seeking to provide a high degree of consistency and comparability over time by minimising changes to the survey, sound survey practice requires careful and continuing maintenance and development to maintain the integrity of the data and the efficiency of the collection.

The changes which have been made to the Labour Force Survey have included changes in sampling methods, estimation methods, concepts, data item definitions, classifications, and time series analysis techniques. In introducing these changes the ABS has generally revised previous estimates to ensure consistency and coherence with current estimates. For a full list of changes made to the Labour Force Survey see Chapter 20 in Labour Statistics: Concepts, Sources and Methods (cat. no. 6102.0.55.001).

#### **INTERPRETABILITY**

The key estimates from the Labour Force Survey are available as original, seasonally adjusted and trend series. Seasonal adjustment is a means of removing the effects of normal seasonal variation from the series so other influences on the series can be more clearly recognised. Seasonal adjustment does not aim to remove the irregular influences which may be present and therefore month-to-month movements may not be reliable indicators of underlying behaviour. To assist in interpreting the underlying behaviour, the ABS produces the trend series by smoothing the seasonally adjusted series to reduce the impact of the irregular component. For further information, see A Guide to Interpreting Time Series - Monitoring Trends (cat. no. 1349.0).

Further information on the terminology and other technical aspects associated with statistics from the Labour Force Survey can be found in the publication Labour Force, Australia (cat.

no. 6202.0), which contains detailed Explanatory Notes, Standard Error information and a Glossary.

## **ACCESSIBILITY**

Please see the Related Information tab for the list of products that are available from this collection.

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